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| APPLICATION NO. | FILED DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|------------|----------------------|---------------------|------------------|
| 09/529,873 | 07/27/2000 | ANDREW BRUCE HOLMES | C1043/7023 | 3741 |
| 22852 | 7590 | 10/23/2003 | | |
| FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 1300 I STREET, NW WASHINGTON, DC 20005 | | | EXAMINER | TRUONG, DUC |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1711 | |

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/529,873 | HOLMES ET AL. |
| | Examiner Duc Truong | Art Unit 1711 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 September 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-7,9,11-24 and 30-38 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) Claim(s) 32 is/are allowed.

6) Claim(s) 1-7,9,11,12,14-24,30,31 and 33-38 is/are rejected.

7) Claim(s) 13 is/are objected to.

8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. ____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Applicant's arguments filed 9/10/2003 have been fully considered but they are not persuasive. The Amendment submitted by Applicant does not overcome the rejection made by Examiner in the last Office action.

Claims 1-7,9,11-12,14-24,30-31, and 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antoniadis or Wan or Hsieh.

The rejection is maintained for the reasons as stated in the last Office action and for the following reasons:

Applicant's arguments are based on the term "soluble characteristic" from the use of specific substituents and cause the blue-shift in the photoluminescence and/or electroluminescence of the compound. Said arguments have been fully considered but they are not persuasive for the reasons as stated in the Advisory action and for the following reasons:

The instant claim 2 clearly discloses specific substituents such as R- and R'-, are independently, and can be an aryl group.

Note that Antoniadis and Wan and Hsieh do disclose the use of R- and R'- are aryl group (diphenyl-) then the claimed characteristics must be considered inherent in the prior art.

Note also that the Declarations have been fully considered but they are not persuasive since they are contrary to the teachings of claim 2. Note that the item 8 in the Declaration shows DP-PPV is insoluble (in what ?) whereas claim 2 discloses substituents are phenyl group .

Further, item 5 in the Declaration shows PPV is an insoluble conjugated polymer, i.e. it is not soluble in any solvent. This is not necessary to be a solvent because it can be water, too.

Furthermore, the Hsieh reference discloses the series of a new family of soluble DP-PPV derivatives and the step toward fully conjugated Blue-emitting poly(p-phenylene vinylenes) (see Title and the last paragraph on page 231 of the reference.)

Therefore, the Hsieh reference does disclose the soluble characteristic and to cause a blue-shift in the photoluminescence and/or electroluminescence of the compound, as in the claims.

Since the Antoniadis and Wan disclose the identical DP-PPV with this of Hsieh, then the characteristics must be considered inherent in the prior art.

Note that claim 32 is allowed because the substituents group contains an ether group which is not included in the teachings of the references.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Truong whose telephone number is 703-308-2437. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



DT

DUCTRUONG
PRIMARY EXAMINER